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A SECOND CASE OF LAPARATOMY FOR INTESTINAL OBSTRUCTION FOLLOWING VAGINAL HYSTERECTOMY.[1]

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In a paper on this subject, read before this Society last October, I stated that if I met with another case of intestinal obstruction "I would operate early or not at all." Unfortunately a similar case *did* present itself seven months after the first, and I followed exactly the course upon which I had previously determined, though with no better success than before. So far as I have been able to learn, this is the tenth case on record, my first being the seventh. The following is the history:

Mrs. F., æt. 39, was admitted to my service at the New York Cancer Hospital on January 19th, 1890, through the courtesy of Dr. H. Marion Sims. She had had one early miscarriage. Since June she had noticed a gradual decline in strength, associated with slight, irregular uterine hemorrhages, but she had never had any severe pain. Towards the end of December she had a profuse flooding, which continued until a few days before entrance. She was then examined for the first time by Dr. Walser, of Staten Island, who recognized the presence of epithelioma of the cervix uteri. On entrance she was in fair condition, and a vaginal examination showed extensive disease of the portio vaginalis involving the posterior vaginal wall. The uterus was movable and the broad ligaments were apparently not invaded. The uterus was extirpated four days later, the operation, which was completed in fifty-five minutes, being somewhat difficult on account of the rigidity of the perineum and the narrowness of the vagina and introitus. It was impossible on this account to apply ligatures, so that the broad

[1] Read at a meeting of the New York Obstetrical Society held February 18th, 1890.

ligaments and bleeding points were caught with clamps, seven or eight pairs being used. Great care was taken to prevent septic material from entering the cavity. The right ovary and tube were removed, but the left were adherent and were not disturbed, as there was general oozing and the patient was weak. Though there was only moderate loss of blood, she had considerable shock. The opening was carefully plugged with iodoform gauze, the gauze being pushed up higher than usual in order to prevent prolapse of the intestine, a loop of gut having appeared in the wound just after the uterus was removed. The patient had more pain than usual after the operation, her temperature rising during the night to 101.6°, while her pulse did not exceed 106. She did not vomit after the first few hours. The following day her condition was excellent. The forceps caused so much pain that I removed them at the end of twenty-four hours (instead of leaving them in for thirty-six, as is my usual custom), but took the precaution not to disturb the gauze which plugged the opening. The wound was draining satisfactorily. The evening of the same day the temperature rose to 101°, but the pulse was only 102 and the patient was free from pain, her abdomen being flat and not sensitive on pressure. She retained nourishment. During the second day she was free from pain, retained all that was given to her, and her temperature did not rise above 99°. It began to rise in the evening, reaching 101.2° at 10 o'clock, while her pulse was 140. Her abdomen became much distended. Rochelle salt was administered, followed by a high enema, which brought away a quantity of gas and some scybala from the large intestine. The tampon was removed from the vagina and a careful search was made for pockets of pus, but the drainage was good. The next morning (the third after the operation) the temperature was 99.6°, and was still lower at noon, but the pulse was still over 100. Several doses of salt were given, followed by high enemata, without results. The patient had vomited but once. At 6 P.M. the temperature was 101°, but the abdomen was flat, not tender, and the patient vomited but seldom. Two hours later she vomited a quantity of fluid having a distinct fecal odor. The temperature was 100.2°. I was sent for, and at once decided to perform laparatomy. She was in very fair condition, and I could attribute her symptoms to no complication except adhesion of the intestine to the edge of the wound, with consequent obstruction, as in the former case which I reported. Previous to opening the abdomen, with the patient under chloroform, I passed my fingers into the vagina and could just touch a coil of small intestine, but could not decide whether it was adherent or not. No time was lost in the laparatomy, as the patient was returned to her bed in about twenty-five

minutes after being placed on the table. Two or three coils of ileum were adherentto the edges of the peritoneal wound; these were easily detached, and at the same time a quantity of flatus escaped per rectum. There were no indications of peritonitis, and the edges of the wound felt healthy. Other intestinal adhesions were sought for in the general cavity, but none could be found. The cavity was thoroughly irrigated, and free drainage was established into the vagina. The patient could not bear the shock of this comparatively slight manipulation, and died fourteen hours later, her temperature remaining below 100°. A partial autopsy showed that the principal point of obstruction had been at the lower eighteen inches of the ileum. The small intestine was generally collapsed, the large being moderately distended. There were evidences of commencing peritonitis. The condition of the edges of the vaginal wound did not suggest septic infection.

Without wishing to discuss the points on which I have already touched in the former report, I would propose several questions which have presented themselves to me, viz.:

1. Does the occurrence of two cases of intestinal obstruction in rapid succession indicate some serious defect in the technique of the operation?

2. Is there any certain way of avoiding this complication?

3. Is there any way in which the obstruction can be overcome without opening the abdomen?

4. Why is the secondary operation invariably fatal, when laparatomy for primary obstruction is sometimes successful under more unfavorable circumstances?

In reply to the first question I would say that I followed the usual course pursued at the Cancer Hospital, securing the broad ligaments with clamps instead of ligatures; in fact, the narrowness of the vagina prevented the use of the latter. The attachment of the peritoneum to the edge of the vaginal wound would also have been impracticable for lack of working space. Finally, there was no special difficulty about the operation. In both of my fatal cases extirpation of the uterus was really easier than in any of the others, and the reports of other cases quoted in my former paper show the same fact. I am positive that no septic material was allowed to enter the peritoneal cavity. A loop of intestine was seen in the wound just as the uterus was removed, but it did not become prolapsed and was readily pushed up with a sponge. In order that pro-

lapse might not occur subsequently, the iodoform gauze was pushed up into the opening higher than usual. In short, in reviewing the operation I am unable to say what precaution was omitted for the prevention of an accident which previous experience had taught me to fear. I would add that I feared I might have nipped a loop of gut with the forceps, but the autopsy disproved this.

How shall we avoid this complication? I confess that I cannot suggest any sure plan so long as we are obliged to open the peritoneal cavity. Doubtless the danger is reduced to a minimum by suturing the peritoneum to the edge of the vaginal wound, and still more so by entirely closing the peritoneal cavity. But in seven out of the ten reported cases the former plan was adopted, and there are circumstances under which it is impossible to do this—as in the present instance, where the vagina was small and the working space was still further limited by the presence of several pairs of forceps. Complete closure of the cavity by suture of the peritoneum is a method which offers several advantages. Fritsch has practised it successfully, and I intend to adopt this method in future, if there is enough room and if it is not important to finish the operation in the shortest possible time. But this cannot be done when several pairs of forceps are used, so that we must either employ ligatures alone, or apply clamps only to the lower portions of the broad ligaments, securing the upper portions with ligatures. In spite of the fact that the clamps have been used successfully in hundreds of cases, I believe that they are not as safe as ligatures, for the reasons before stated. Entire closure of the peritoneum of course prevents drainage of the cavity; but if the stumps of the broad ligaments are brought down and attached to the edge of the vaginal wound, there ought to be no danger of sepsis, since the sloughing tissues will then be entirely extraperitoneal, and there will remain within the pelvic cavity no raw surface to which a loop of intestine might become adherent.

Is there any way in which an adherent loop of gut can be freed without opening the abdomen? It is extremely doubtful. After the adhesion has once formed, I doubt if free catharsis would separate it—at least we have no positive proof that this ever occurs. Again, we cannot reach per vaginam

high enough to clearly recognize and free the adherent gut. Moreover, there is considerable risk of displacing either ligatures or clots, thus occasioning dangerous hemorrhage, or of introducing septic material into the cavity from the sloughing vaginal wound. At the time when the obstruction is recognized the peritoneal wound has usually closed and must be reopened.

It may be fairly assumed that intestinal obstruction following vaginal hysterectomy is a fatal complication, and that, although it is our plain duty to give the patient the benefit of a secondary operation, her chance of surviving it is an extremely small one. In the case which I have reported, the obstruction was recognized at least three days earlier than in any of the nine others, and there was not an hour's delay in the operation, which was completed rapidly and with a minimum of disturbance of the abdominal viscera. The patient was in far better condition than the average; in fact, many cases of suppurative peritonitis, intestinal obstruction, and ruptured extra-uterine pregnancy have recovered under far more unfavorable conditions. There is something in the condition of the patient after vaginal hysterectomy which renders intestinal obstruction especially fatal. I recall a case in which I assisted a gentleman to open the abdomen thirty-two hours after he had performed vaginal hysterectomy, in order to remove a sponge which had slipped from the holder, yet the patient recovered easily. I do not pretend to explain why the complication occurs, or why surgeons have been so invariably unsuccessful in their attempts to overcome the obstruction by the only scientific method—abdominal section.